



# Revision Class - 2

Special class

→ ~~Char Array & String~~

→ Ref Variable

→ Pass by Value & Reference

→ Class & Object

→ Misc X



Pass by Value & Ref

5

n

void solve (int arr[], int n,  
int &twoCount)

```
{  
    for (int i=0; i<n; i++)  
    {  
        if (arr[i] == 2)  
        {  
            twoCount++;  
        }  
    }  
}
```

int main()

int arr[] = {1, 2, 2, 2, 3}

int size = 5;

int twoCount = 0;

solve (arr, size, twoCount);

cout << twoCount;

}

3

arr

1	2	2	2	3
---	---	---	---	---

size

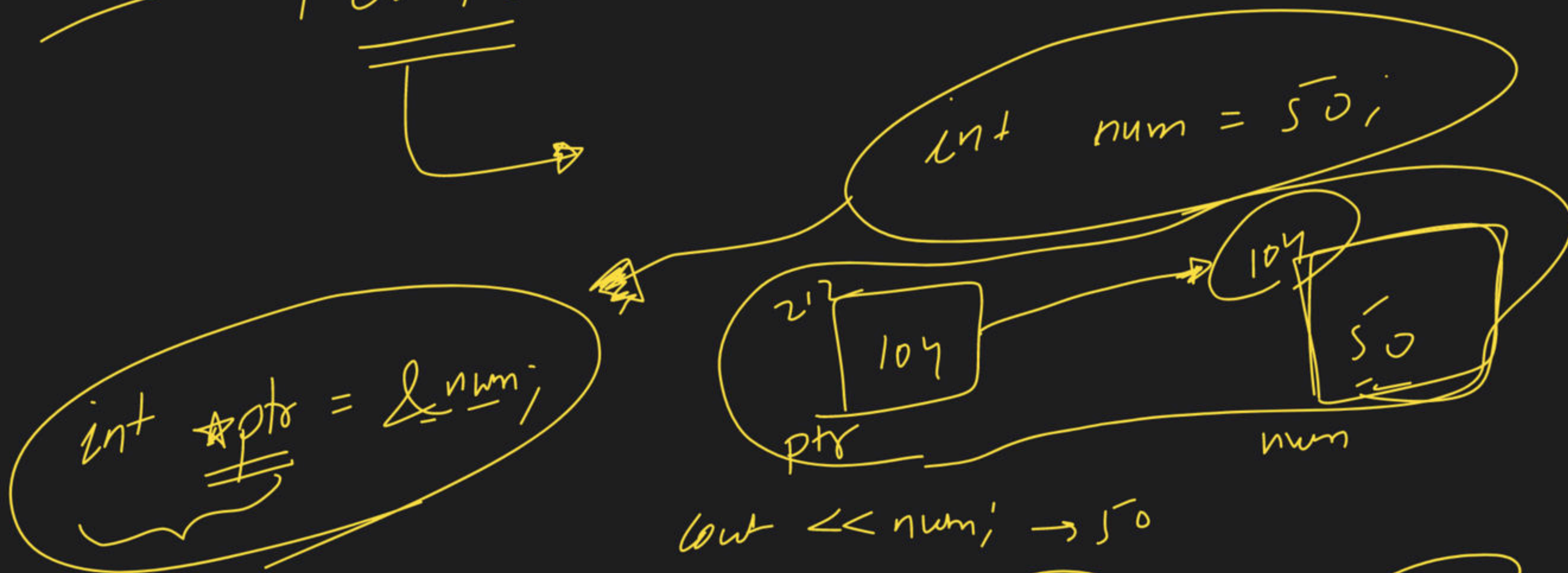
5

twoCount

3



# → Pointers

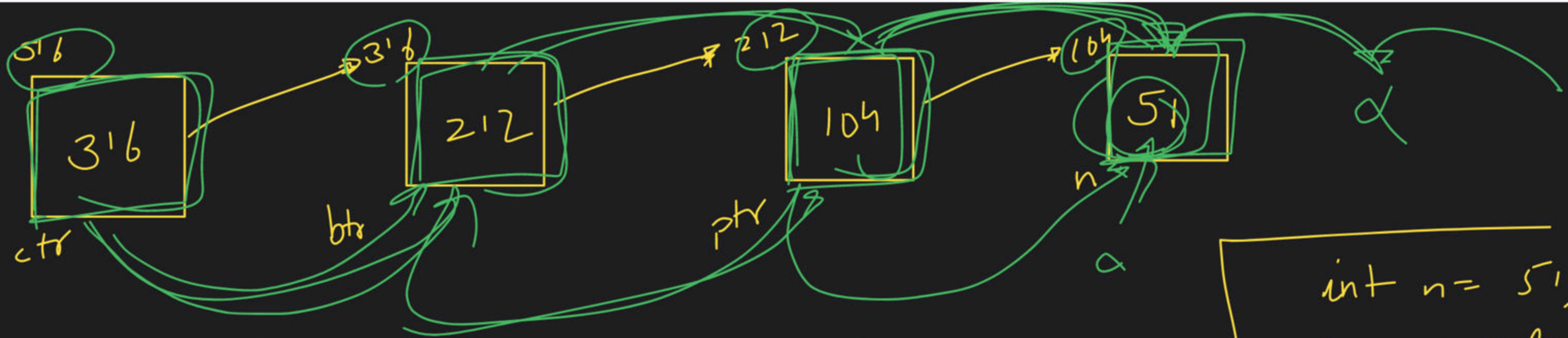


`cout << num; → 50`

`cout << &num` → `104`

The diagram shows a circle containing `&num` with an arrow pointing to the value `104`, which is circled in blue. This represents the memory address stored in the expression `&num`.





n → 51  
&n → 104  
~~\*n~~ → error  
 (ptr) → 104  
&ptr → 212  
 (\*ptr) → 51  
 (\*\*ptr) → error  
 (\*\*\*)ptr → error

btr → 212  
&btr → 316  
 (\*btr) → 104  
 (\*\*btr) → 51  
 (ctr) → 316  
&ctr → 516  
 (\*ctr) → 212  
 (\*\*ctr) → 104  
 (\*\*\*)ctr → 51

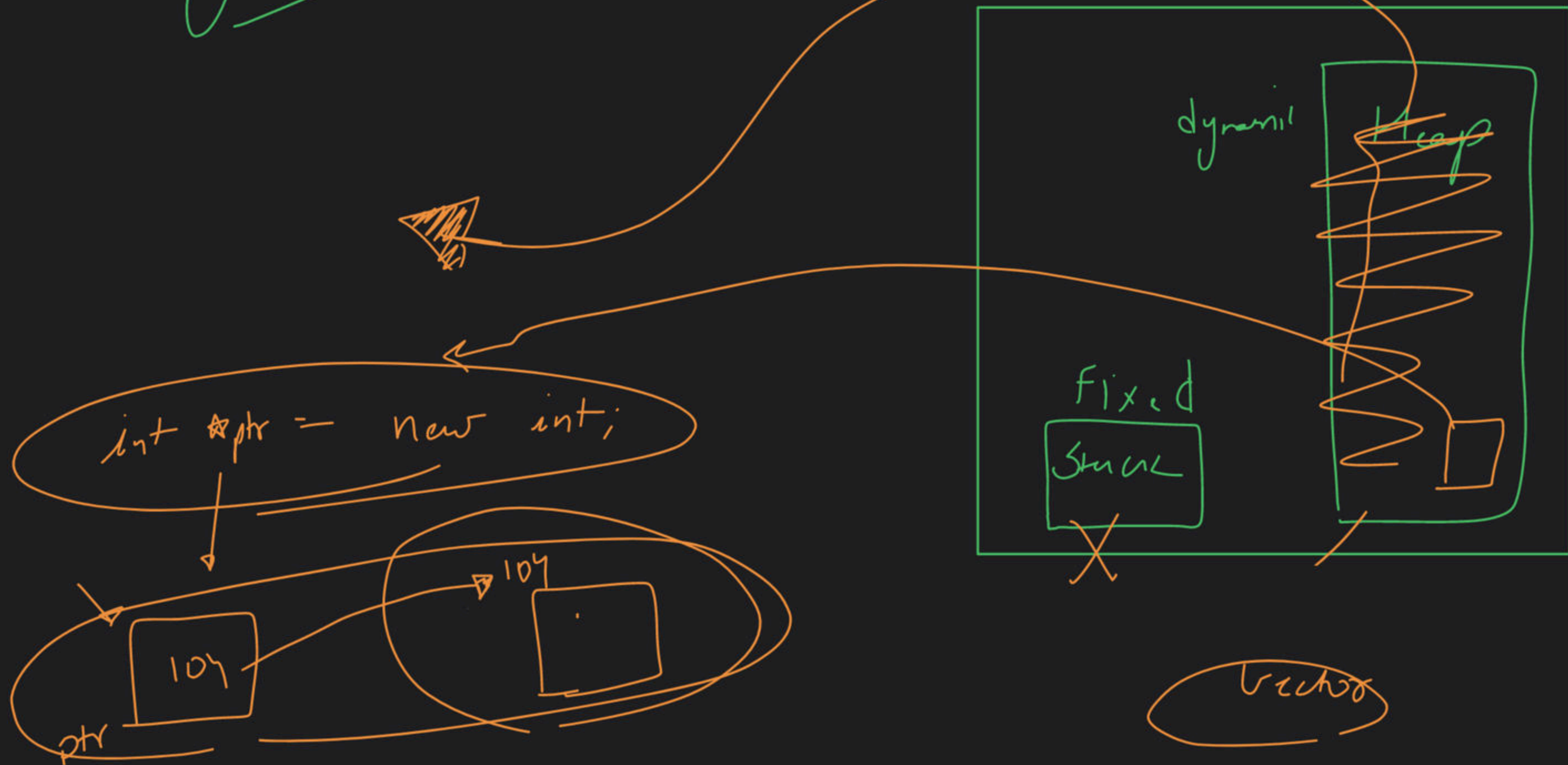
```

int n = 51;
int *ptr = &n;
int **btr = (&ptr)
int ***ctr = &btr
  
```



# Dynamic Memory

~~int arr[n];~~ → int \*arr = new int[n];

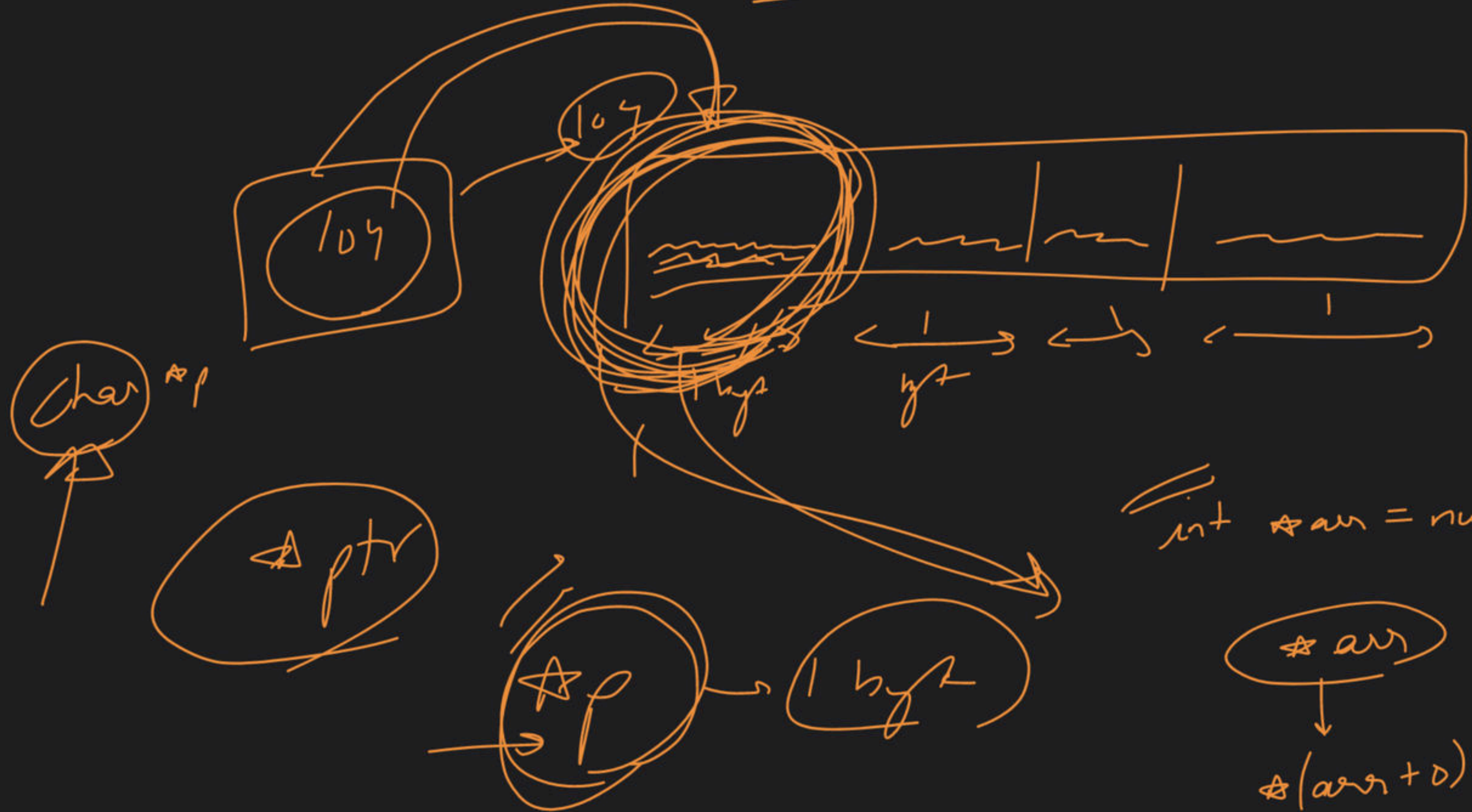




Class

Objects

int a = 50



int \*arr = new int(1)

\*arr

\*arr + 0 → arr(0)  
1 val

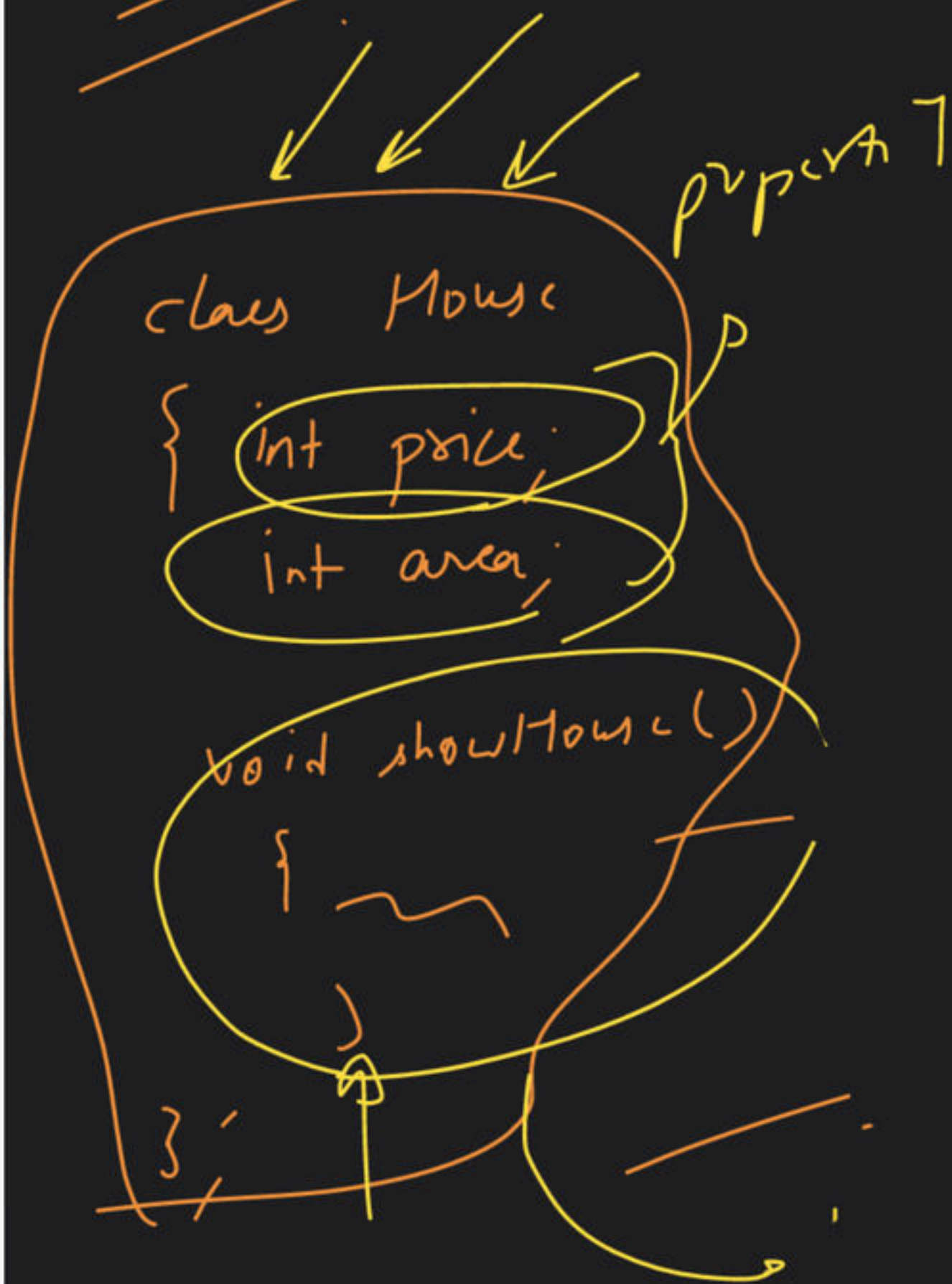


Classes

Object

Object  
↓

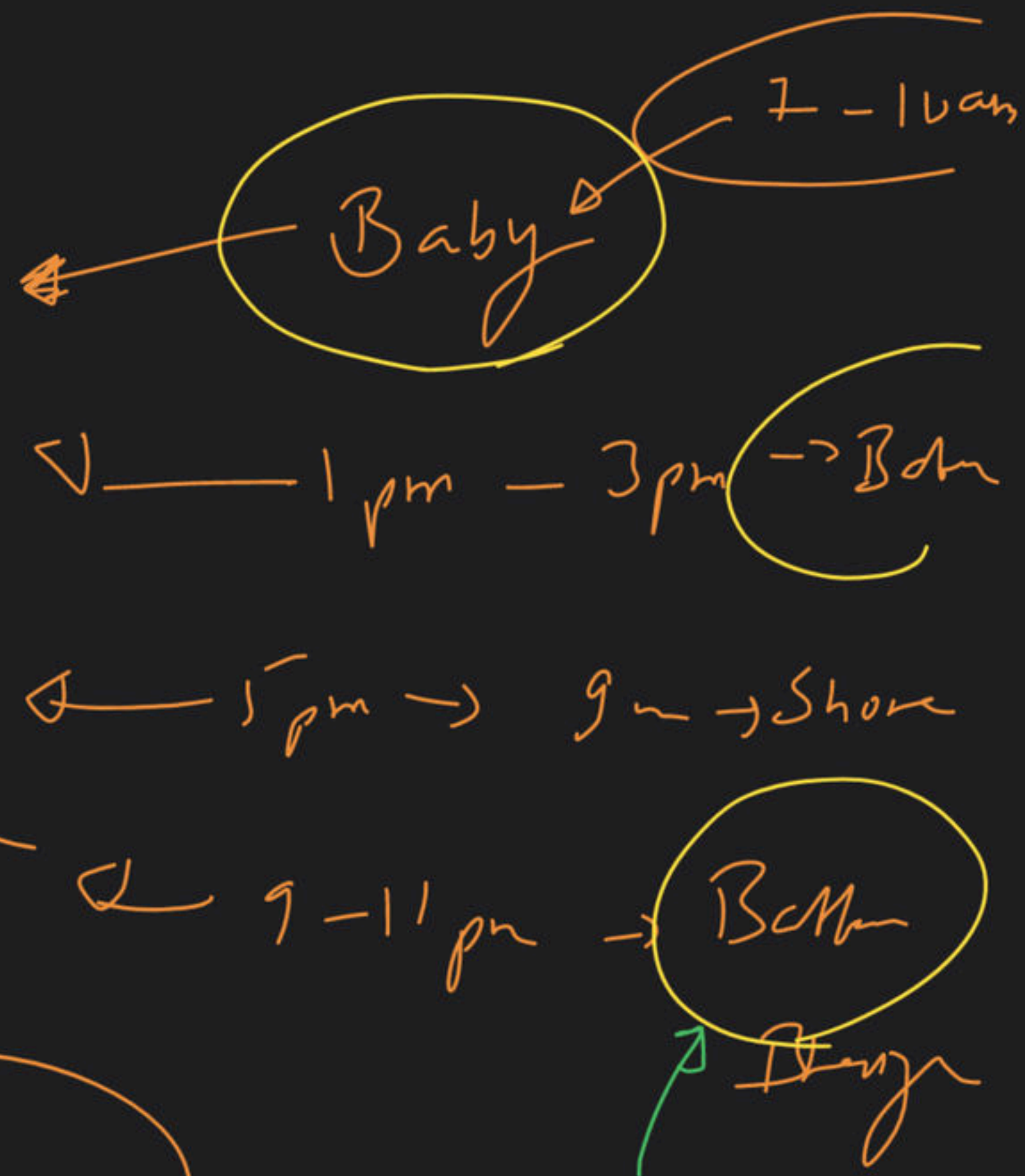
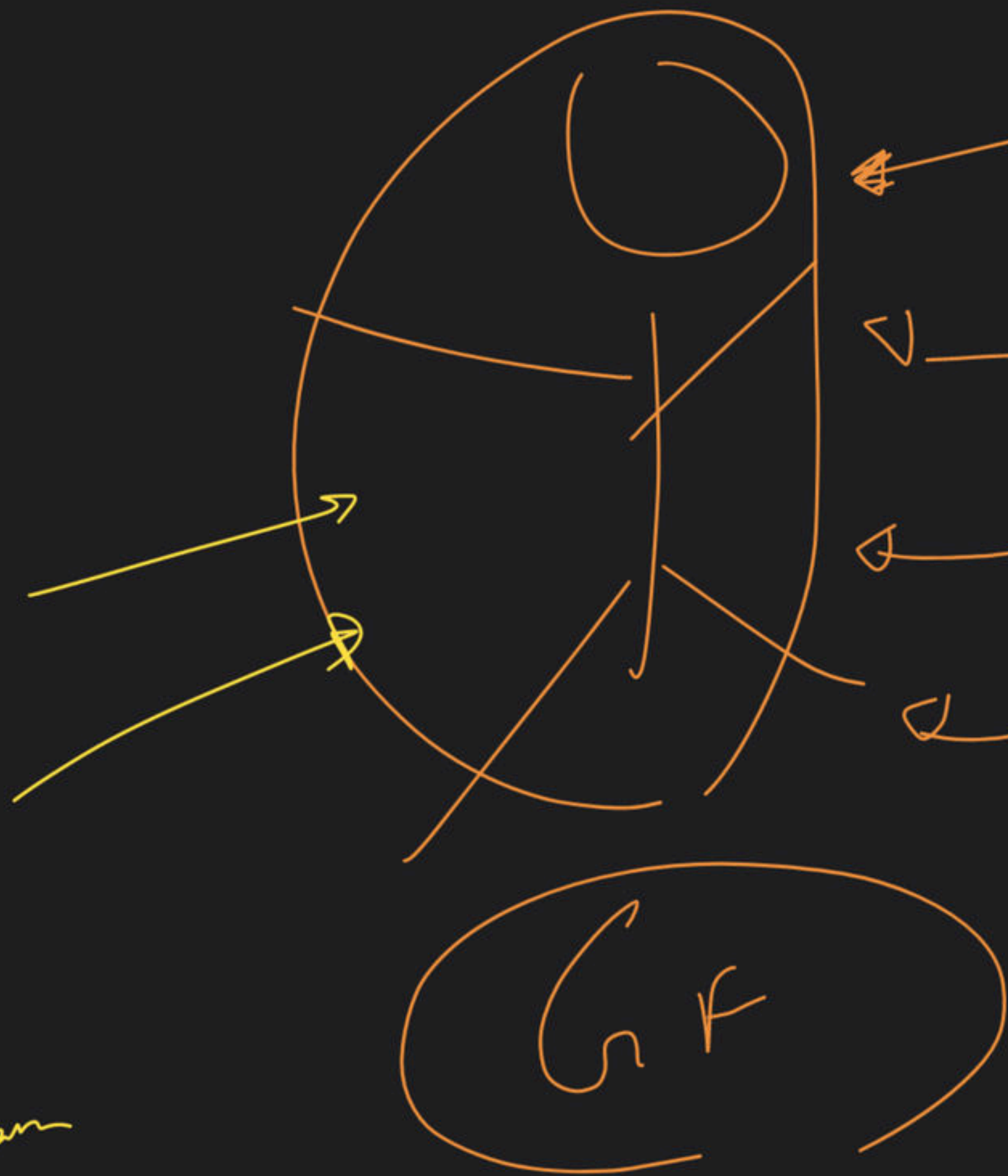
Actual thing





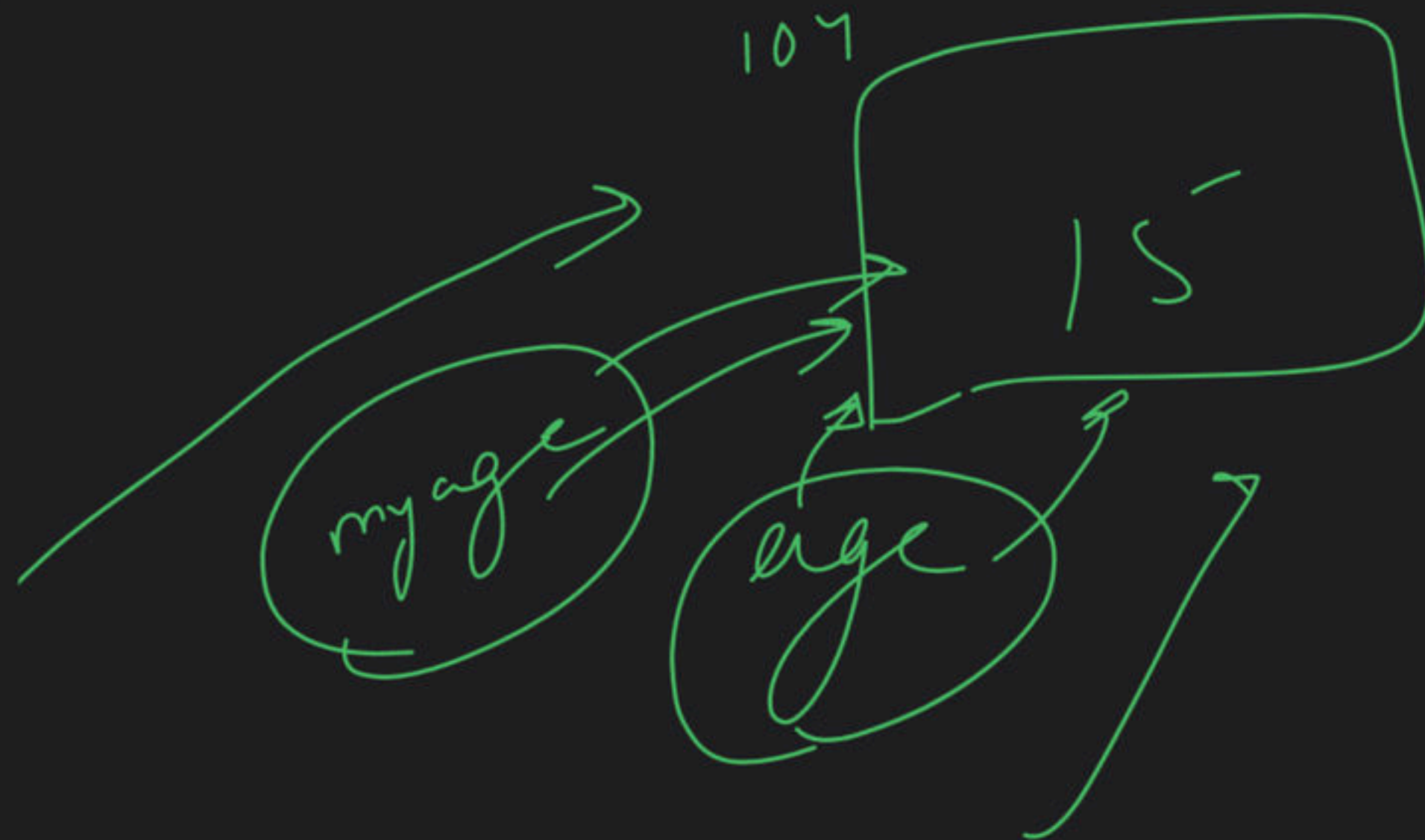








int myAge = age;      int age = 15;





Char = Arrays

a b c

Char arr[10] = "abc";

int arr[10] = {1, 2, 3, 4}

= {1};

= {6}

int arr[10];

bool → 1 bit

8 bit

///



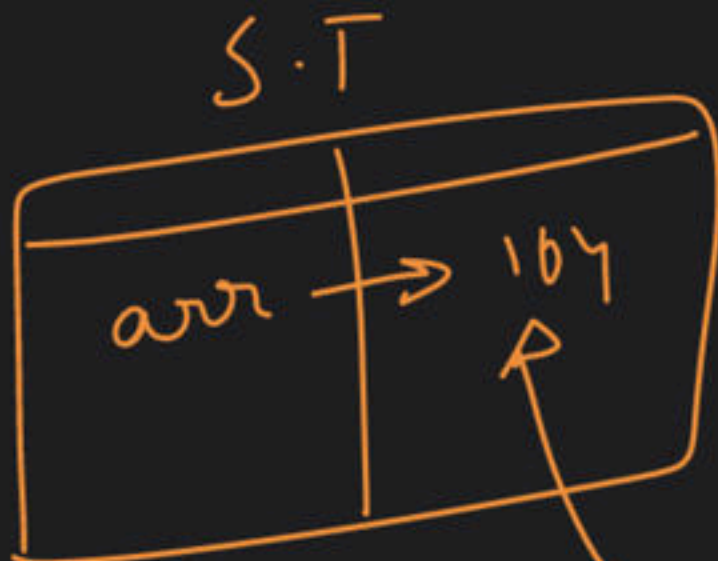
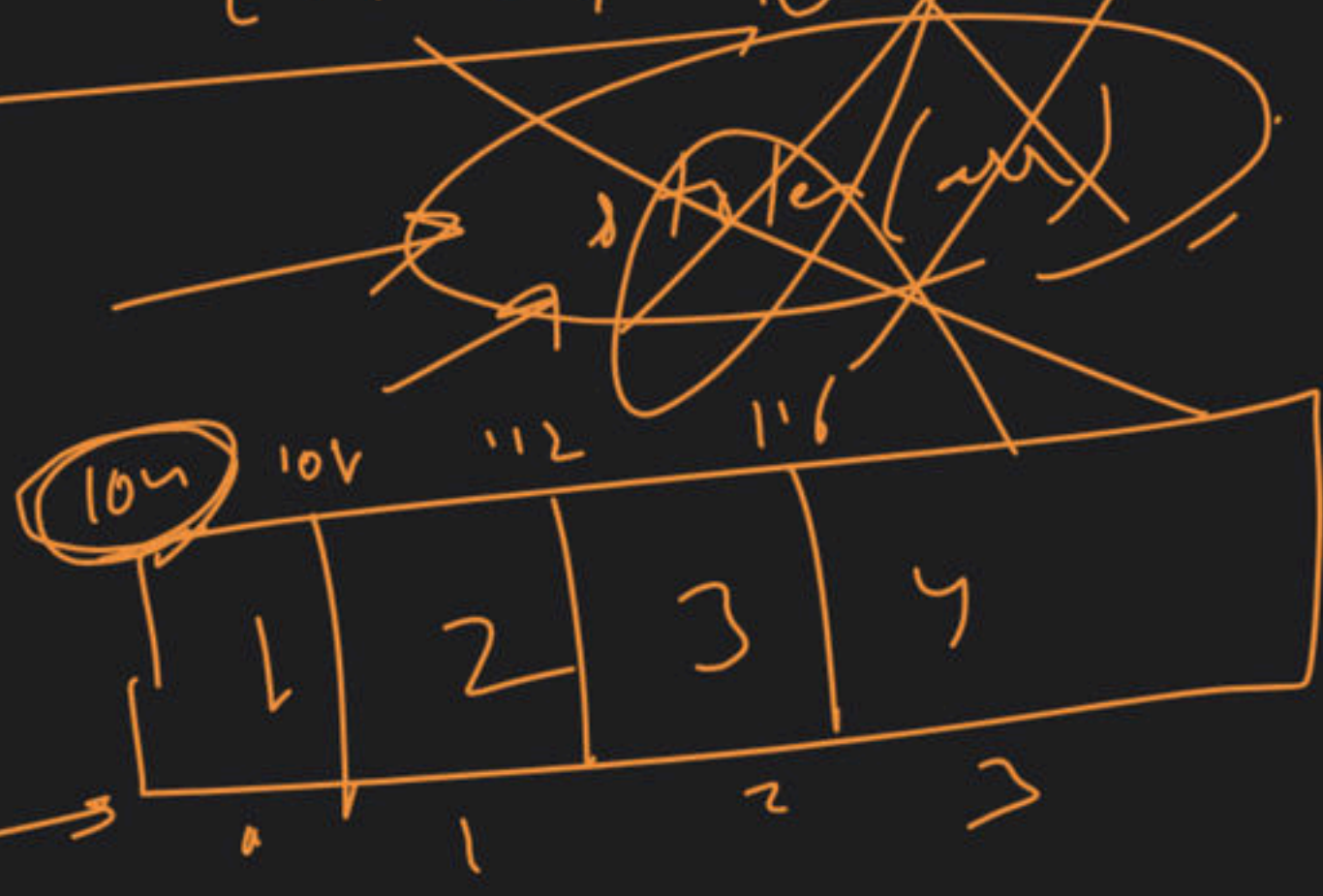
char arr[] = "abc"

int arr[] = {1, 2, 3}

cout << arr;  
abc

cout << arr;  
104

int arr[] = {1, 2, 3, 4}



Can i change this?

- strlen
- strcpy
- strcmp
- strcat

~~Substr~~

== 0 -> ✓  
!= 0 -> ✗  
arr arr



~~int count = 0;~~

int index = 0;

while (str[index] != '\0')

{  
~~count++;~~

~~index++;~~

}

return ~~index~~  
~~count;~~

qwer

func(-, 1

qwer

func(-, 1  
{  
}



